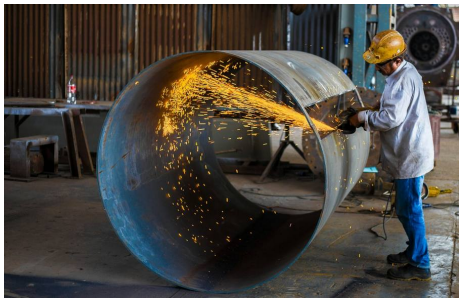
ALLOY STEEL Advanced Materials. Engineered for Performance.

SA387 Grade 5 Class 2

Alloy Steel | ASTM / ASME: A387 / SA387 Grade 5 Class 2 | EN: X12CrMo5 / 1.7362

5Cr-0.5Mo plate. The chromium level lifts resistance to sulphidic corrosion and high temperature oxidation, so Grade 5 is specified for crude and vacuum unit hot sections where naphthenic and sulphur attack dominate.



Stock status: Mill indent - Typical lead time: 4 - 8 weeks mill indent

Key features

- Chromium-molybdenum creep strength at elevated temperature
- Resistance to hydrogen attack (Nelson curve service)
- Supplied normalised and tempered with simulated PWHT on request
- Ultrasonic testing to SA578 and through-thickness Z grades available

Available forms & sizes

Form	Size range
Plates	6 - 150 mm thk, up to 3000 mm wide, N or Q+T
Flanges	1/2" - 24", 150# - 2500#, F11 / F12 / F22 / F5 / F9 / F91
Fittings	1/2" - 24" butt weld fittings, WP11 / WP22 / WP91

Chemical composition (%)

Element	Min	Max
C	-	0.15
Cr	4.00	6.00
Mo	0.45	0.65
Si	-	0.50
Mn	0.30	0.60

Mechanical properties

Property	Value	Unit
Yield Strength (0.2%)	310 min	MPa
Tensile Strength	515 - 690	MPa

Property	Value	Unit
Elongation	18 min	%
Condition	Normalised and tempered	-

Physical properties

Property	Value	Unit
Density	7.85	g/cm3
Max Service Temperature	550 - 650 depending on grade	C

Standards

ASTM A387 / ASME SA387 Class 2, ASME Section II Part A, EN 10028-2, EN 10204 3.1 / 3.2

Equivalent grades

X12CrMo5, 1.7362, A387 Gr 5 Cl 2

Industries served

Oil & Gas, Petrochemical, Refining, Power Generation, Fertiliser

Typical applications

- Pressure vessel shells and heads for elevated temperature service
- Hydrogen service reactors and separators
- Boiler drums, headers and steam plant
- Petrochemical heaters and hot wall equipment

Live datasheet